Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known Application Number 10/527.672 April 18, 2006 Filing Date First Named Inventor RAPPUOLI Group Art Unit 1645 Examiner Name Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet of

	U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No.	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Floures Appear		
The same of the sa			Constitution of the last of th		rigules Appeal		

		FOREIGN PAT	TENT DOCU	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
The same of the sa		OTHER REIGH ART MOUR	A T C A T C A T C	DATURE ROOM				
		OTHER PRIOR ART NON PA						
Examiner Initials *	Cite No.1	Include name of the author (in CAPITA the item (book, magazine, journal, seri number(s), publish	al, symposiun		page(s), volume-issue	T²		
/S.D./		ABBAS et al., <u>Cellular and Molecula</u> 2000	r Immunolo	gy, 4th ed., Chapter	r 15, pages 360-62,			
/S.D./		AMARA et al., "Molecular detection antibodies," Neurosci. Lett. 185, 14			ng specific			
/S.D./			ARESCHOUG et al., "Group B streptococcal surface proteins as targets for protective antibodies: identification of two novel proteins in strains of serotype V.," Inf. Immun.					
/S.D./		metagenome: Complete genome s	BANKS et al., "Progress toward characterization of the Group A Streptococcus metagenome: Complete genome sequence of a macrolide-resistant serotype M6 strain," J. Infectious Diseases 190, 727-38, August 15, 2004					
/S.D./		BARNETT & SCOTT, "Differential re- pyogenes by two sortase gene hom						
/S.D./		Surface Protein Containing a QVPT	BARNETT et al., "A Novel Sortase, SrtC2, from Streptococcus pyogenes Anchors a Surface Protein Containing a QVPTGV Motif to the Cell Wall," Journal of Bacteriology, Vol. 186, No. 17, pp. 5865-5875, September 2004					
/S.D./		BECKMANN et al., "Identification of Novel Adhesins from Group B Streptococci by Use of Phage Display Reveals that CSa Peptidase Mediates Fibronectin Binding," Inf. Immun. 70, 2869-76, June 20002						
/S.D./		Ending Extracellular Matrix-Binding	BESSER et al., "Genomic Localization of a T Serotype Locus to a Recombinatorial Zone Ending Extracellular Matrix-Binding Proteins in Streptococcus pyogenes," Infection and Immunity, Vol. 70, No. 3, pp. 1159-1167, March 2002					
/S.D./			BLACK et al: "Streptococcus pneumoniae polypeptide coding region"; GENBANK Accession No. AAV42990, November 9, 1998.					
/S.D./		BLACKBURN et al., "The end of the (DNA) line," Nature Structural Biology 7, 847-49, Oct. 2000						

Examiner Signature	/S. Devi/	Date Considered	10/28/2009
-----------------------	-----------	--------------------	------------

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 2 of

Substitute for form 1449A/PTO

Examiner

U.S. PATENT DOCUMENTS Name of Patentee or Applicant of Cited Document Document Number Publication Date Pages, Columns, Lines, Where Relevant Passages or Relevant Examiner Initials Cite MM-DD-YYYY No. Number - Kind Code² (if known) Figures Appear

		FOREIGN PA	TENT DOCU	MENTS					
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶			
Section 1			-						
	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS								
Examiner Initials *									
/S.D./		BORK et al., "Powers and pitfalls in Research 10, 398-400, 2000	n sequence ar	nalysis: the 70% hu	rdle," Genome				
/S.D./		BOROVEC et al., "Synthesis and as cells," J. Virol. 67, 3095-301, June		oatitis A virus-spec	ific proteins in BS-C-1				
/S.D./		BOWIE et al., "Deciphering the me substitution," Science 257, 1306-1		ein sequences: tolo	erance to amino acid				
/S.D./			BRODEUR et al., "Identification of group B streptococcal Sip protein, which elicits cross-protective immunity," Inf. Immun. 68(10), 5610-8, Oct. 2000						
/S.D./		of heparin-binding (acidic fibrobla	BURGESS et al., "Possible dissociation of the heparin-binding and mitogenic activities of heparin-binding (acidic fibroblast) growth factor-1 from its receptor-binding activities by site-directed mutagenesis of a single lysine residue," J. Cell Biol. 111, 212-3.8 1090						
/S.D./		CHUNG et al., "chlorosome protei	n," NCBI Acce	ssion No. 2115394	F, July 10, 1992				
/S.D./		from Streptococcus agalactiae," A 1997	CLANCY et al., "Cloning and Characterization of a Novel Macrolide Efflux Gene, mreA, from Streptococcus agalactiae," Antimicrobial Agents and Chemotherapy 41, 2719-23, 1997						
/\$.D./			COLLINS et al., "Mutation of the principal sigma factor causes loss of virulence in a strain of the Mycobacterium tuberculosis complex," Proc. Natl. Acad. Sci. USA 92, 8036-40, 1995						
/S.D./		DALE et al., "New Protective Antig 1261-68, May 1999	DALE et al., "New Protective Antigen of Gorup A Streptococci," J. Clin. Invest. 103, 1261-68, May 1999						
/S.D./		DALE et al., "Recombinant, octava Vaccine 14, 944-48, 1996	lent group A	streptococcal M pr	otein vaccine,"				

Signature	/S. Dew/	Considered	10/28/2009	
EXAMINER: Initia	al if reference considered, whether or not citation is in con-	ormance with MPEP	609. Draw line through citation if not in conformance	

Date



Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date First Named Inventor RAPPUOLI Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 3 of

U.S. PATENT DOCUMENTS Name of Patentee or Applicant of Cited Document Document Number Publication Date Pages, Columns, Lines, Where Relevant Examiner Initials Cite MM-DD-YYYY Passages or Relevant No. Number - Kind Code² (if known) Figures Appear

		FOREIGN PA	ATENT DOCU	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
Name and Address of the Owner, where the Owner, which is the Ow		- Address	-					
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	ENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publis	rial, symposiun		page(s), volume-issue	T²		
/S.D./		DALE, "Group A Streptococcal Vac 13, 227-43, March 1999	DALE, "Group A Streptococcal Vaccines," Infectious Disease Clinics of North America					
/S.D./		DALE, "Multivalent group A strept immunogenicity of six tandem M						
/S.D./		DATABASE EMBL, Accession No. A ID No: 192, March 19, 1999	DATABASE EMBL, Accession No. AAX13129, Enterococcus faecalis genome contig SEQ					
/S.D./		DATABASE EPO Proteins, EBI Acce WO0209818," February 17, 2003	DATABASE EPO Proteins, EBI Accession No. AX605513, "Sequence 3442 from WO0209818." February 17, 2003					
/S.D./		DATABASE Geneseq, "Group B Str Accession No. GSP:AAY91320, Ma		rotein sequence SE	Q ID NO:49," EBI			
/S.D./		DATABASE Geneseq, "Streptococo No. GSP:ADV81242, February 24,		protein, SEQ ID 23	82," EBI Accession			
/S.D./		DATABASE Geneseq, "Fibrinogen- No. GSP: ADS93952, December 2,			17," EBI Accession			
/S.D./		DATABASE Geneseq, EBI Accession SEQ ID NO:9444," July 2, 2002	n No. GSP: Al	3P30134, "Streptoc	occus polypeptide			
/S.D./			DATABASE Genesed, EBI Accession No. GSP: ABP27285, "Streptococcus polypeptide SEQ ID NO:3746," July 2, 2002; revised in 2007					
/S.D./			DATABASE Genseq, "Protein encoded by Prokaryotic essential gene #319788," Accession No. ABU46451. June 13, 2003					

Examiner Signature	/S. Devi/	Date Considered	10/28/2009



Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet of

U.S. PATENT DOCUMENTS Name of Patentee or Applicant of Cited Document Document Number Publication Date Pages, Columns, Lines, Where Relevant Passages or Relevant Examiner Initials Cite MM-DD-YYYY No. Number - Kind Code² (if known) Figures Appear

		FOREIGN PA	ATENT DOCU	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
The state of the s			-					
		OTHER PRIOR ART NON I	PATENT LITE	RATURE DOCUM	ENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publis	rial, symposiun		page(s), volume-issue	T²		
/S.D./		DATABASE JPO Proteins, "Nucleic Streptococcus," EBI Accession No.			roup B			
/S.D./		DATABASE SWISSPROT[Online] 0 Q9PGX9, Hypothetical protein XF0		cession no. EBI, Da	atabase accession no.			
/S.D./			DATABASE UniProt [Online] 1 March 2003, "Cell wall surface anchor family protein," retrieved from EBI accession no. UNIPROT: QBDYR5, Database accession no. QBDYR5, 87.2% Identity with SCO ID NO.20906.					
/S.D./		DATABASE UniProt [Online], 22 No protein," retrieved from EBI access ID NO:20906; abstract						
/S.D./		DE BOEVER et al., "Enterococcus f nucleotide sequence and genetic 37, 1327-41, 2000						
/S.D./			DITTMER et al., "Treatment of infectious diseases with immunostimulatory oligodeoxynucleotides containing CpG motifs," Curr. Opinion Microbiol. 6, 472-77, Oct.					
/S.D./		DUEZ, "Enterococcus hirae mraR, mraW, yIIC and ftsZ partial genes,						
/S.D./		ELLIS, <u>Vaccines</u> , Chapter 29, Plotk pages 568-75, 1988	ELLIS, <u>Vaccines</u> , Chapter 29, Plotkin et al., eds., W.B. Saunders Company (Philadelphia),					
/S.D./		EXAMINATION REPORT for NZ 560	EXAMINATION REPORT for NZ 560966, March 4, 2009, 2 pages					
/S.D./			FERRETTI et al., "Complete genome sequence of an M1 strain of Streptococcus pyogenes," Proc. Natl. Acad. Sci. USA 98, 4658-63, April 10, 2001					

Examiner Signature	/S. Devi/	Date Considered	10/28/2009
-----------------------	-----------	--------------------	------------



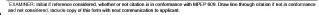
Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet of

		FOREIGN PA	ATENT DOCU	MENTS			
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶	
Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, where the Owner, where the Owner, which is the Owner, whic		-	The same of the sa				
		OTHER PRIOR ART NON I	PATENT LITE	RATURE DOCUM	ENTS		
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publis	rial, symposiun		page(s), volume-issue	T²	
/S.D./		FERRETTI et al., "Putative surface October 31, 2006	exclusion pro	tein," GENBANK Ac	cession No. Q9A1H3,		
/S.D./		FERRETTI et al: "Streptococcus py complete genome" DATABASE Ac			ction 87 of 167 of the		
/S.D./		GLASER et al., "Genome sequence invasive neonatal disease," Mol. N			athogen causing		
/S.D.		GRANDI & ZAGURSKY, "The impact and lessons," Expert. Rev. Vaccine			ry: achievements		
/S.D./		Grandi, "Genomics and Proteomic Functional Biology of Whole Orga Sons, chapter 20, 2006					
/S.D./		GREENSPAN et al., "Defining epito 7, 936-37, 1999	pes: It's not a	s easy as it seems,	" Nature Biotechnol.		
/S.D./		GUTEKUNST et al., "Analysis of Ro Expression in Streptococcus agala					
/S.D./		GUTIERREZ et al., "insertional Mutagenesis and Recovery of Interrupted Genes of Streptococcus mutans by Using Transposon Tn917: Preliminary Characterization of Mutants Displaying Acid Sensitivity and Nutritional Requirements," J. Bacteriol. 178, 4166-75, July 1996					
/S.D./		gene, complete cds; Ffh (ffh) gene	GUTTIEREZ et al., "Streptococcus mutans ProX (pouABC) gene, partial cds; YixM (yixM) gene, complete cds; #fh (#fh) gene, complete cds, alternatively spliced; Satt (satt) gene, complete cds, and Satt (satt) gene, partical cds," GENBANK				

$\overline{}$			
Examiner Signature	/S. Devi/	Date Considered	10/28/2009



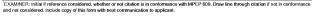
Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 6 of

		FOREIGN PA	TENT DOCU	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
The same of the sa								
	_	OTHER PRIOR ART NON F	ATENT LITE	RATURE DOCUM	ENTS	1		
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publis	rial, symposiun		page(s), volume-issue	T²		
/S.D./			GUZMAN et al., "Protective immune response against Streptococcus pyogenes in mice ofter intranasal vaccination with the fibronectin-binding protein Sfbl," J. Infectious					
/S.D./			OLMES, "PSMA specific antibodies and their diagnostic and therapeutic use," Exp.					
/S.D./		HONG, "unnamed protein produc BAB1603, one page, Oct. 3, 2000	HONG, "unnamed protein product [Streptococcus pyogenes]," NCBI Accession No. BAB1603, one page, Oct. 3, 2000					
/S.D./			HORVATH et al., "Toward the development of a synthetic group a streptococcal vaccine of high purity and broad protective coverage," J Med Chem. 2004 Jul 29:471(6):4100-4					
/S.D./		HUGHS et al., "Identification of M agalactiae," Inf. Immun. 70, 1254-			reptococcus			
/S.D./		International Preliminary Examina 02/34771) dated February 17, 200		or PCT/GB01/04789	9 (published as WO			
/S.D./			International Preliminary Examination Report for PCT/GB2003/001882 (published as WO 03/093306) dated August 18, 2004					
/S.D./		International Preliminary Examina WO 06/042027) dated April 11, 20		or PCT/US2005/036	6009 (published as			
/S.D./			International Preliminary Examination Report for PCT/US2003/029167 (published as WO 04/041157) dated March 5, 2005					
/S.D./		International Preliminary Examina WO 05/032582) dated February 6		or PCT/US2004/02	1868 (published as			

Examiner Signature /S. Devi/	Date Considered	10/28/2009
---------------------------------	--------------------	------------



Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 Examiner Name Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet of

	U.S. PATENT DOCUMENTS						
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant		
Initials *	No.	Number - Kind Code ² (if known)	MM-DD-YYYY	of Cited Document	Passages or Relevant Figures Appear		
COLUMN CO			The state of the s				

		FOREIGN PA	ATENT DOCU	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
STATE OF THE PERSON NAMED IN			-					
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	ENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publist	rial, symposiun		page(s), volume-issue	T ²		
/S.D./		International Preliminary Examina WO 05/028618) dated March 16,		or PCT/US2004/03	0032 (published as			
/S.D./		International Search Report for PC August 27, 2002	T/GB01/0478	39 (published as W	O 02/34771) dated			
/S.D./		International Search Report for PC dated November 14, 2002	International Search Report for PCT/GB2003/001882 (published as WO 03/093306) dated November 14, 2002					
/S.D./		International Search Report for PC dated June 20, 2006	T/US2005/03	6009 (published a	s WO 06/042027)			
/S.D./		International Search Report for PC WO 2006/069200)	International Search Report for PCT/US05/046491 dated June 26, 2007 (published as WO 2006/069200)					
/S.D./		International Search Report for PC dated August 2, 2004	International Search Report for PCT/US2003/029167 (published as WO 04/041157) dated August 2, 2004					
/S.D./		International Search Report for PC dated October 28, 2005	International Search Report for PCT/US2004/024868 (published as WO 05/032582) dated October 28, 2005					
/S.D./		International Search Report for PC dated December 6, 2005	International Search Report for PCT/US2004/030032 (published as WO 05/028618) dated December 6, 2005					
/S.D./		International Search Report for PC dated August 25, 2008	T/US2005/02	7239 (published a	s WO 06/078318)			
/S.D./		International Search Report for PC dated October 9, 2008	T/US2007/02	2838 (published a	s WO 08/108830)			

Examiner Signature	/S. Devi/	Date Considered	10/28/2009



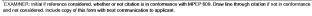
Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 8 of

		FOREIGN PA	TENT DOCU	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
-			_					
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	ENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publis	rial, symposium		page(s), volume-issue	T²		
/S.D./		JOBLING et al., "Analysis of structors the use of site-directed mutagene						
/S.D./		KALMAN et al., "Comparative gen Nature Genetics 21, 385-89, April		nydia pneumoniae	and C. trachomatis,"			
/S.D./		Homologies between SLO and Oth	KEHOE et al., "Nucleotide Sequence of the Streptolysin O (SLO) Gene: Structural Homologies between SLO and Other Membrane-Damaging, Thiol-Activated Toxins," Inf. Immun. 53, 3228-32, December 1987					
/S.D./		KOCH et al., "Complexity and expr Natl. Acad. Sci. USA 89, 353-57, Ja		ns of the desmosor	mal adherins," Proc.			
/S.D./		KUNST et al., "The complete geno subtilis," NCBI Accession No. CAB			ve bacterium Bacillus			
/S.D./		Streptococcus shares N-terminal s	LACHENAUER et al., "A protective surface protein from the Type V Group B Streptococcus shares N-terminal sequence homology with the Alpha C Protein," Inf. Immun. 64. 4255-60. October 1996					
/S.D./			LARSSON et al., "Protection against experimental infection with group B streptococcus by immunization with a bivalent protein vaccine," Vaccine 17, 454-58, 1999					
/S.D./		LAUER et al., "Genome Analysis Re 105, July 1, 2005	LAUER et al., "Genome Analysis Reveals Pili in Group B Streptococcus," Science 309, 105, July 1, 2005					
/S.D./			LAZAR et al., "Transforming growth factor alpha: mutation of aspartic acid 47 and leucine 48 results in different biological activities," Mol. Cell. Biol. 8, 1247-52, 1988					
/S.D./		LE PAGE et al., "Streptococcus aga Accession No. AX134653, May 29,		nce 217 from WO	01/32882, GENBANK			

Examiner /S. Devi/ Signature		/28/2009
---------------------------------	--	----------



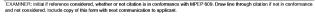
Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 9 of

		FOREIGN PA	TENT DOCL	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
Name and Address of the Owner, or other Persons of			Name of Street, or other Designation of the Street, or other Desig					
		OTHER PRIOR ART NON F	ATENT LITE	RATURE DOCUM	ENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publisl	rial, symposiun		page(s), volume-issue	T 2		
/S.D./		LEI et al., "Identification and immu supernatant proteins," Inf. Immur			ccus culture			
/S.D./		LEWIS, "Riddle of Biofilm Resistan 45, No. 4, pp. 999-1007, April 200		obial Agents and Cl	nemotherapy, Vol.			
/S.D./		LINDAHL et al., "Surface proteins of other bacterial pathogens," Clinical						
/S.D./		Polysaccharide-Beta C Protein Cor	MADOFF et al., "Maternal Immunization of Mice with Group B Streptococcal Type III Polysaccharide-Beta C Protein Conjugate Elicits Protective Antibody to Multiple Serotypes," J. Clinical Invest. 94, 286-92, 1994					
/S.D./		MAIONE et al., "Identification of a Multiple Genome Screen," Science			s Vaccine by			
/S.D./			McMILLAN et al., "(lachtification and assessment of new vaccine candidates for group A streptococcal infections," Vaccine 22, 2783-90, 2004					
/S.D./			McMILLAN et al., "Prospecting for new group A streptococcal vaccine candidates," Indian J. Med. Res. 119, 121-25, May 2004					
/S.D./		MEEHAN & OWEN, "Sequence 1 for A68631, May 6, 1999	MEEHAN & OWEN, "Sequence 1 from Patent WO9801561," GENBANK Accession No.					
/S.D./			MEINKE et al., "S. pyogenes hyperimmune system reactive antigen Spy0269," EBI Accession No. ADR83896, December 2, 2004; revised June 15, 2007					
/S.D./		MICHEL et al: "Cloned alpha and b protective immunity"; INFECTION 2028.						

Examiner Signature	/S. Devi/	Date Considered	10/28/2009



Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 10 of

U.S. PATENT DOCUMENTS Name of Patentee or Applicant of Cited Document Document Number Publication Date Cite Pages, Columns, Lines, Where Relevant MM-DD-YYYY Passages or Relevant Initials * No Number - Kind Code² (if known) Figures Appear

		FOREIGN PA	ATENT DOCU	MENTS				
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
1								
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	ENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publis	rial, symposium	title of the article (who, catalog, etc.), date, country where publish	page(s), volume-issue	T²		
/S.D./		MOLLING et al., "Naked DNA for v	accine or the	rapy," J. Mol. Med.	75, 242-46, 1997			
/S.D./			ADRA et al., "Group A Streptococcus produce pilus-like structures containing rotective antigens and lancefield T antigens," Proc. Natl. Acad. Sci. USA 102, 15641-16 (October 2), 2005					
/S.D./		MUSSER, "The Next Chapter in Re 2006	verse Vaccino	logy," Nat. Biotech	nol. 24, 157-58,			
/S.D./		NAKAGAWA et al., "Genome sequ reveals a large-scale genomic rear phage evolution," Genome Res. 13	rangement in	invasive strains an				
/S.D./			NAKATA et al., "MsmR, a specific positive regulator of the Streptococcus pyogenes FCT pathogenicity region and cytolysin-mediated translocation system genes," Mol.					
/S.D./		Targeting to the Cell Wall Envelop	NAVARRE et al., "Surface Proteins of Gram-Positive Bacteria and Mechanisms of Their Targeting to the Cell Wall Envelope," Microbiology and Molecular Biology Reviews, Vol. 63, No. 1, pp. 174-229, March 1999					
/S.D./		NCBI News, table on page 4, "Mici	robial Genom	es Available for BL/	AST Search," July			
/S.D./		OLIVE et al., "Protection of mice fi immunization with a peptide vacc epitope and lacks a T cell autoepit	ine that conta	ins a conserved M	protein B cell			
/S.D./		OREFICI et al., "Possible virulence Group B)," J. Clin. Microbiol. Infec			tiae (Lancefiled			

Examiner Signature	/S. Devi/	Date Considered	10/28/2009
-----------------------	-----------	--------------------	------------

	Under the Paperwo	rk Redu	ction Act of 1995, no persons a	re required to respond to a collection of	information unless it contains a valid OMB control numb
Substitute	for form 1449A/PTC)			Complete if Known
INFO	RMATION	DIS	CLOSURE	Application Number	10/527,672
STAT	EMENT B	ΥΑ	PPLICANT	Filing Date	April 18, 2006
•		• • •	,	First Named Inventor	RAPPUOLI
				Group Art Unit	1645
	(use as many she	ets as	necessary)	Examiner Name	Devi
Sheet	11	of	20	Attorney Docket Number	002441.00121

U.S. PATENT DOCUMENTS

/S.D./

		Document Number			Patentee or Applicant			
Examiner Initials *	No.1	Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	of	Cited Document	Pages, Columns, Lines, Where Passages or Relevant Figures Appear		
The state of the s								
		F	DREIGN PATEN	T DOCUM	MENTS			
Examiner Initials*	Cite No.1	Foreign Patent Docu Country Code ³ - Number ⁴ - Kind C	ment Pu	blication Date DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁰	
-			_	-		Figures Appear		
		OTHER PRIOR A	RT NON PATE	NT LITER	RATURE DOCUM	IENTS		
Examiner Initials *	Cite No.1	Include name of the auti the item (book, magazin numb	e, journal, serial, sy	ymposium,		, page(s), volume-issue	T2	
/S.D./		PAOLETTI, "Surface str immunity," in <u>Gram Po</u> 2000						
/S.D./		conjugative plasmids of	POURNARAS et al., "Pheromone responses and high-level aminoglycoside resistance of conjugative plasmids of Enterococcus faecalis from Greece," J. Antimicrobial Chemotherapy 46, 1013-16, 2000					
/S.D./			PRITZLAFF et al., "Genetic basis for the beta-haemolytic cytolitic activity of group B streptococcus." Mol. Microbiol. 39, 236-48, 2001					
/S.D./			PRITZLAFF et al., "Streptococcus agalactiae cyl gene cluster, partial sequence," GENBANK Accession No. AF157015, February 8, 2001.					
/S.D./			PROFT et al., "Identification and Characterization of Novel Superantigens from Streptococcus pyogenes," J. Exp. Med. 189, 89-101, January 4, 1999					
/S.D./		yllB, yllc, yllD, pbpC, m	PUCCI et al., "Enterococcus faecalis strain A24836 cell wall/cell division gene cluster, yllB, yllc, yllD, pbpC, mraY, murrD, murG, divlB, ftsA and fitsZ genes, complete cds," GENBANIK Accession No. U94707, September 10, 1997					
/S.D./		QUINN, "The response concentrate," J. Clin. Ir				to streptolysin O		
/S.D./		RAMACHANDRAN et a Binding Protein, and Ev						

Examiner Signature	/S. Devi/	Date Considered	10/28/2009
-----------------------	-----------	--------------------	------------

Infectious Diseases 166, 635-39, 1992

of Bacteriology, Vol. 186, No. 22, pp. 7601-7609, November 2004 RODEWALD et al., "Neonatal mouse model of group b streptococcal infection," J.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

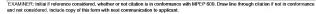
Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 Examiner Name Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 12 of

U.S. PATENT DOCUMENTS					
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
Initials *	No.	Number - Kind Code ² (if known)	MM-DD-YYYY	or Cited Document	Passages or Relevant Figures Appear
THE OWNER OF THE OWNER,			-		

		FOREIGN PA	TENT DOCU	MENTS			
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶	
Contract of the last			_				
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	ENTS		
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publis	rial, symposiun		page(s), volume-issue	T²	
/S.D./		RODRIGUEZ-ORTEGA et al., "Chara proteins through analysis of the g Biotechnol. 24, 191-97, 2006					
/S.D./		ROITT et al., Structure of Antigens and 7.8, 1998	, <u>Immunolog</u> y	ر, 4th ed., Mosby, L	ondon, pages 7.7		
/S.D./			ROSINI et al., "Identification of novel genomic islands coding for antigenic pilus-like structures in Streptococcus agalactiae," Mol. Microbiol. 61, 126-41, 2006				
/S.D./		RUDENKO et al., "Selection for activation of a new variant surface glycoprotein gene expression site in Trypanosoma brucei can result in deletion of the old one," Mol. Biochem. Paristiol. 95, 97-109, 1998; NCBI Accession No. CAD21770					
/S.D./		RUDINGER et al., "Characteristics hormone sequence," in Peptide H 1976, pages 1-7					
/S.D./		SCHNEEWIND et al., "Sequence ar T6 Surface Protein of Group A Stre pp. 3310-3317, June 1990					
/S.D./			SCHNEEWIND, "Structure of the Cell Wall anchor of Surface Proteins in Staphylococcus aureus," Science 268, 103-06, April 7, 1995				
/S.D./		SEGURA et al., "Streptococcus suis and group B Streptococcus differ in their interactions with murine macrophages," FEMS Immunol. Med. Microbiol. 21, 189-95, 1998					
/S.D./		SEIZEN, "Multi-domain, cell envelope proteases of lactic acid bacteria," Antonie von Leeuwenhoek 76, 139-55, 1999					
/S.D./		SIMPSON et al., "Xylella fastidiosa GENBANK Accession No. AE00399			complete genome,"		

Examiner /S. Devi/	Date 10/28/2009 Considered	
--------------------	-------------------------------	--



Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid CMB control number. Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE Application Number 10/527.672 Filing Date April 18, 2006 STATEMENT BY APPLICANT First Named Inventor RAPPUOLI 1645 Group Art Unit (use as many sheets as necessary) Examiner Name Devi Sheet of Attorney Docket Number 002441.00121

U.S. PATENT DOCUMENTS					
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
Initials *	No.	Number - Kind Code ² (if known)	MM-DD-YYYY	or Cited Document	Passages or Relevant Figures Appear
Contraction of the last of the			and the same of th		

		FOREIGN PA	ATENT DOCU	MENTS			
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶	
OR STREET, SQUARE, SQU							
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	ENTS		
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publist	rial, symposium		page(s), volume-issue	T²	
/S.D./		SMOOT et al., "Genome sequence M18 group A Streptococcus strain Proc. Natl. Acad. Sci. USA 99, 4668	s associated v	vith acute rheuma			
/S.D./		SPELLERBERG et al., "Streptococcu GENBANK Accession No. AF09378			mplete sequence,"		
/S.D./		SPELLERBERG et al: "Identification Streptococcus agalactiae by ISSI tr 1999; pp 3212-3219.					
/S.D./		STALHAMMAR-CARLEMALM et al related to several group B strepto and promotes binding to human e 219.	coccal surface	proteins, confer p	rotective immunity		
/S.D./		STEPHENSON et al., "The Fap1 firm for the glycan moiety block the ad tooth model," Mol. Microbiol. 43,	lhesion of Stre	ptococcus parasai			
/S.D./			SU et al., "Identification of a Xenopus cDNA that prevents mitotic catastrophe in the fission yeast Schizosaccharomyces pombe," Gene 145, 155-56, 1994				
/S.D./		Supplementary Search report for I dated January 21, 2008	Supplementary Search report for EP 03799822 (corresponding to WO 04/041157) dated January 21, 2008				
/S.D./		SUROVOV & FERRETTI, "Physical a of Streptococcus pyogenes," J. Bac					
/S.D./		TAKAMI et al., "Two component so regulation," NCBI Accession No. N					

Signature	/S. Devi/	Considered	10/28/2009



Date

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date First Named Inventor RAPPUOLI Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 14 of

		FOREIGN PA	TENT DOCU	MENTS			
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶	
A STATE OF THE PERSON NAMED IN			-				
		OTHER PRIOR ART NON F	ATENT LITE	RATURE DOCUM	ENTS		
Examiner Initials *	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue No.¹						
/S.D./		TELFORD et al., "Sequence 7466 fr February 2, 2004; modified May 3		4771, EBI Accession	n No. CQ650509,		
/S.D./		TELFORD et al., "Streptococcus polypeptide SEQ ID NO 9188" of WO 02/34771, EBI Accession No. ABP300006, July 2, 2002; revised June 15, 1007					
/S.D./		TETTELIN et al., "Complete genome sequence and comparative genomic analysis of an emerging human pathogen, serotype V Streptococcus agalactiae," Proc. Natl. Acad. Sci. USA 99, 1239-196. Sequenber 17, 2002					
/S.D./		TETTELIN et al., "Complete genom pneumoniae," Science 293, 498-50		f a virulent isolate	of Streptococcus		
/S.D./			TETTELIN et al., DATABASE EMBL, Accession No. AE014193, Streptococcus agalactiae 2603V/R section 3 of 100 of the complete genome, September 2, 2002				
/S.D./		TETTELIN et al., Swiss-Prot Accession No. Q3DV91 for Streptococcus agalactiae strain 18R21, November 22, 2005					
/S.D./		TIGHE et al., "Gene vaccination: plasmid DNA is more than just a blueprint," Immunology Today 19, 89-97, Feb. 1998					
/S.D./		TODD, "Antigenic Streptococcal Hemolysin," J. Exp. Med. 55, 267-80, 1932					
/S.D./		TON-THAT & SCHNEEWIND, "Asse diphtheriae," Mol. Microbiol. 50, 3			rynebacterium		
/S.D./			TON-THAT et al., "Sortases and pilin elements involved in pilus assembly of Corynebacterium diphtheriae," Mol. Microbiol. 53, 251-61, 2004				

Examiner Signature	/S. Devi/	Date Considered	10/28/2009

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date First Named Inventor RAPPUOLI Group Art Unit 1645 **Examiner Name** Devi 002441.00121 Attorney Docket Number

(use as many sheets as necessary) Sheet 15 of

U.S. PATENT DOCUMENTS Name of Patentee or Applicant of Cited Document Document Number Publication Date Pages, Columns, Lines, Where Relevant Examiner Initials Cite MM-DD-YYYY Passages or Relevant No. Number - Kind Code² (if known) Figures Appear

		FOREIGN PA	ATENT DOCU	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
Street, or other Designation of the last o			-			
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	ENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT the item (book, magazine, journal, se number(s), publist	rial, symposiun		page(s), volume-issue	T ²
/S.D./		UniProt Accession No. A7CNQ7, Ju	ıly 5, 2004			
/S.D./		UniProt Accession No. Q5XEL1, No.	ov. 23, 2004			
/S.D./		UniProt Accession No. Q8P318, Oc	ct. 1, 2002			
/S.D./		VALLET et al., "The chaperone/ush Identification of fimbrial gene clus formation," PNAS, Vol. 98, No. 12,	ters (cup) and	d their involvemen		
/S.D./		WANG et al., "Protein encoded by No. ABU46451, June 19, 2003; rev			978," EBI Accession	
/S.D./	WATNICK et al., "Steps in the development of a Vibrio cholerae El Tor biofilm," Molecular Microbiology, Vol. 34, No. 3, pp. 586-595, 1999					
/S.D./		WOODSON et al., "Analysis of a ril Microbiology 140, 1829-38, 1994	bose transpor	t operon from Bac	illus subtilis,"	
/S.D./		ZHONG et al., "Hypothetical prote AAD29767, May 11, 1999	in of Arabido	psis thaliana," NCB	I Accession No.	

Examiner Signature	/S. Devi/	Date Considered	10/28/2009
-----------------------	-----------	--------------------	------------



U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid CMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

Substitute for form 1449A/PTO

Complete if Known 10/527,672 Application Number April 18, 2006 Filing Date RAPPUOLI First Named Inventor Group Art Unit 1645 Examiner Name Devi Attorney Docket Number 002441.00121

			U.S. PATENT D		
xaminer Initials *	Cite No.	Document Number Number - Kind Code ² (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Releva Passages or Relevant
/S.D./	-	4454121	06-12-1984	Beachev	Figures Appear
15.0.7					\
-1		5098827	03-24-1992	Boyle et al.	+1
-1	_	5354846	10-11-1994	Kehoe	1
-		5378620	01-03-1995	Adams et al.	1
4—		5391712	02-21-1955	Adams et al.	1
4_		5445820	08-29-1995	Seidel et al.	1
_		5585098	12-17-1996	Coleman	
		5700648	12-23-1997	Kehoe	
		5821088	10-13-1998	Darzins et al.	
		5846547	12-08-1998	Cleary	1
		5968763	10-19-1999	Fischetti et al.	
		6174528	01-16-2001	Cooper et al.	
		6406883	06-18-2002	Lutticken et al.	
		6420152	07-16-2002	Adams et al.	1
		6579711	06-17-2003	Gaier et al.	1
\neg		6635623	10-21-2003	Hoogeveen et al.	
1		6669703	12-30-2003	Shue	1
		6737521	05-18-2004	Fischetti et al.	
		6747437	06-08-2004	Chiu	
		6777547	08-01-2004	Podbielski	
		6833356	12-21-2004	Koenig et al.	
1		6936252	08-30-2005	Gilbert et al.	
┰		7033765	04-25-2006	Dime et al.	
		7041814	05-09-2006	Weinstock et al.	
		7098182	08-29-2006	Le Page et al.	1
1		7101692	09-05-2006	Schneewind et al.	1
1		7128918	10-31-2006	Hamel et al.	1
1		7128919	10-31-2006	Adderson et al.	1
-1-		7169902	01-30-2007	Podbielski	1
_		7247308	07-24-2007	Martin et al.	1
1		7348006	03-25-2008	Contorni et al.	T
17	+	7407664	08-05-2008	Beall et al.	
₩	1	7438912	10-21-2008	Meinke et al.	
/S.D./		7485710	02-03-2009	Reinscheid et al.	

Examiner Signature	/S. Devi/	Date Considered	10/28/2009

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

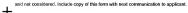
Substitute for form 1449A/PTO

Complete if Known Application Number 10/527,672 April 18, 2006 Filing Date First Named Inventor RAPPUOLI Group Art Unit 1645 Examiner Name Devi 002441.00121 Attorney Docket Number

	(use as many she	ets as	necessary)
Sheet	17	of	20

Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevan	
Initials *	No.	Number - Kind Code ² (if known)	MM-DD-YYYY	of Cited Document	Passages or Relevant Figures Appear	
/S.D./		20020025516	02-28-2002	Black et al.	1	
		20020045737	04-18-2002	Choi et al.	1	
		20020061569	05-23-2002	Haselbeck et al.	1	
		20020086023	07-04-2002	Dale		
		20030035805	02-20-2003	Michel et al.	\	
		20030109690	06-12-2003	Ruben et al.	1	
		20030157122	08-21-2003	Dale		
		20030171337	09-11-2003	Aylward et al.	\	
		20040029129	02-12-2004	Wang et al.		
		20040101536	05-27-2004	Teti et al.		
T		20040219639	11-04-2004	Potter et al.		
		20040236072	11-25-2004	Olmsted et al.	1	
		20050019345	01-27-2005	Podbielski	1	
		20050020813	01-27-2005	Masignani et al.		
		20050181388	08-18-2005	Edwards et al.		
		20050214918	09-29-2005	Edwards et al.		
		20050288866	12-29-2005	Sachdeva	1	
		20060039922	02-23-2006	Mizzen et al.	1	
		20060041961	02-23-2006	Abad et al.		
		20060073530	04-06-2006	Schneewind et al.		
		20060115479	06-01-2006	Reinscheid et al.	1	
		20060160121	07-20-2006	Mounts et al.	1	
		20060165716	07-27-2006	Telford et al.		
$\neg \vdash$		20060194751	08-31-2006	Meinke et al.		
		20060210579	09-21-2006	Telford et al.	1	
\neg		20060210580	09-21-2006	Telford et al.	1	
		20060210581	09-21-2006	Telford et al.		
		20060210582	09-21-2006	Telford et al.	1	
		20060258849	11-16-2006	Telford et al.	1	
\neg		20060269541	11-30-2006	Meinke et al.		
		20060275315	12-07-2006	Telford et al.	1	
		20070036828	02-15-2007	Rappuoli et al.	1	
\neg	-	20070053924	03-08-2007	Tettelin et al.	1	
1/		20070065464	03-22-2007	Grandi et al.		
V		20070098737	05-03-2007	Dale		
/S.D./	-	20070116712	05-24-2007	Hamel et al.		

Examiner Signature	/S. Devi/	Date Considered	10/28/2009
EXAMINER: Initi	al if reference considered, whether or not citation is in confo	rmance with MPEP 6	609. Draw line through citation if not in conformance



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449A/PTO

Complete if Known Application Number 10/527,672 April 18, 2006 Filing Date First Named Inventor RAPPUOLI Group Art Unit 1645 Examiner Name Devi 002441.00121 Attorney Docket Number

	(use as many she	ets as	necessary)
Shoot	18	of	20

			U.S. PATENT D		
Examiner Initials *	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant
	160.	Number - Kind Code ² (if known)			Figures Appear
/S.D./		20070128210	06-07-2007	Olmsted et al.	1
		20070128211	06-07-2007	Olmsted et al.	
_ _		20070128229	06-07-2007	Olmsted et al.	
		20070141635	06-21-2007	James	
		20080038268	02-14-2008	Martin et al.	
		20080220010	09-11-2008	Telford et al.	
	1	20090022753	01-22-2009	Olmsted et al.	
	1	20070128210	06-07-2007	Olmsted et al.	
	}	20070128211	06-07-2007	Olmsted et al.	
		20070128229	06-07-2007	Olmsted et al.	
		20070141635	06-21-2007	James	
1/		20080038268	02-14-2008	Martin et al.	
V		20080220010	09-11-2008	Telford et al.	
/S.D./		20090022753	01-22-2009	Olmsted et al.	1
_					
1					
	-				
		_			
	_				
	_		1		
	_			1	
	_				
	_	+	-	+	
	_	ļ			-
	_	-		<u> </u>	<u> </u>
	-				
	-	ļ			
xaminer	- 1	/S. Devi/		Date	

Signature EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

	Complete if Known)
Application Number	10/527,672	
Filling Date	April 18, 2006	
First Named Inventor	RAPPUOLI	
Group Art Unit	1645	
Examiner Name	Devi	
Attorney Docket Number	002441.00121	

(use as many sheets as necessary) Sheet 19 of

Substitute for form 1449A/PTO

	U.S. PATENT DOCUMENTS					
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant	
Initials *	No.	Number - Kind Code ² (if known)	MM-DD-YYYY	or Cited Document	Passages or Relevant Figures Appear	
The Party of the P			ACCURATION OF THE PARTY OF THE			

			OKEIGN PATE	NT DOCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
/S.D./		EP0369825	05-23-1990	Kehoe		
8		EP0613947	01-31-1994	Beckman-Coulter Inc.	1	
		EP1770171	04-04-2007	Universität zu Köln	1	
\neg		EP555438	01-22-1997	Beckman Instruments	1	
		EP555439	10-15-1997	Beckman Instruments		
		GB2233977	01-23-1991	Kehoe	1	
		WO199006951	06-28-1990	Paton		
		WO199305155	03-18-1993	Beckman Instruments		
\neg		WO199305156	03-18-1993	Beckman Instruments	1	
\neg		WO199801561	01-15-1998	Trinity College, Dublin		
		WO199803677	08-1998	Dime	1	
\neg		WO199818931	05-07-1998	Kunsch et al.	1	
		WO199819689	05-14-1998	SmithKline Beecham	1	
\neg		WO199823631	06-04-1998	SmithKline Beecham		
		WO199954457	10-28-1999	Chiron Spa	1	
\neg		WO199913084	03-18-1999	Dale	1	
		WO199916882	04-08-1999	Medimmune, Inc.	1	
		WO199926969	06-03-1999	University of Otago; New Zealand Pastoral Agriculture Research Institute Limited		
		WO199942588	08-26-1999	Biochem, Vaccines Inc.		
		WO200006736	02-10-2000	Le Page		
\neg		WO200006737	02-10-2000	Gilbert et al.	1	
\neg		WO200023456	04-27-2000	Scripps Research Institute	1	
		WO200062804	10-26-2000	Regents of the University of California	1	
		WO200078787	12-28-2000	University of Utah Research Foundation		
		WO200132882	05-10-2001	Microbial Technics Ltd.		
		WO2002012294	02-14-2002	St. Jude Children's Research Hospital		
		WO2002075507	09-26-2002	Pharmacia & UpJohn		
N/		WO2002077183	10-03-2002	Elitra Pharmaceuticals Inc.		
-		WO2002092818	11-21-2002	Institute Pasteur		
/S.D./		WO2003068813	08-21-2003	Shire Biochem. Inc.		

Examiner	/S. Devi/	Date Capaidared	10/28/2009
Signature		Considered	10/20/2003

Devi

002441.00121

PTO-SBOBA, (19-01)
Approved for use through 1001/2002, CMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of refermation unless of contrast and with CMB control number. Substitute for form 1449A/PTO Complete if Known Application Number INFORMATION DISCLOSURE 10/527,672 Filing Date April 18, 2006 STATEMENT BY APPLICANT First Named Inventor RAPPUOLI Group Art Unit 1645 (use as many sheets as necessary)

Examiner Name

Attorney Docket Number

	U.S. PATENT DOCUMENTS					
Examiner C	Cte	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant	
Initials * N	No.1	Number - Kind Code ² (if known)	MM-DD-YYYY	or Cited Document	Passages or Relevant Figures Appear	

			OREIGN PATEN	I DOCUMENTS	I Berry Colonia Union	
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
/S.D./		WO2003087353	10-23-2003	Affinium Pharmaceuticals Ltd.	\	
		WO2003093306	11-13-2003	Chiron Srl & TIGR		
		WO2004018646	03-04-2004	Chiron Corp. & TIGR		
1		WO2004035618	03-31-2004	Chiron Corporation		
1		WO2004078907	09-16-2004	Intercell AG		
		WO2004099242	11-18-2004	Intercell AG		
		WO2005013666	02-17-2005	Garvan Institute for Medical Research		
		WO2005028618	03-31-2005	Chiron Corporation		
		WO2005032582	04-14-2005	Chiron Corporation		
		WO2005076010	08-18-2005	Council of Scientific and Industrial Research New Delhi		
		WO2005108419	11-17-2005	University of Glasgow		
		WO2006035311	04-06-2006	Chiron Srl		
		WO2006042027	04-20-2006	Chiron Corporation		
		WO2006069200	06-29-2006	Chiron Corporation	1	
	1	WO2006078318	07-27-2006	Chiron Corporation		
		WO2006082527	08-10-2006	Chiron Srl	1	
		WO2006082530	08-10-2006	Chiron Srl		
		WO2006130328	12-07-2006	Novartis Vaccines and Diagnostics, Inc.		
		WO2007018563	02-15-2007	Wyeth		1
		WO2007039319	04-12-2007	Universität zu Köln		
		WO2007052168	05-10-2007	Novartis Vaccines and Diagnostics Srl		
V/		WO2008003515	10-01-2008	Intercell		
V		WO2008020335	02-21-2008	Novartis AG		
/S.D./		WO2008108830	09-12-2008	Novartis AG		
OSTONIA STATE			-			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

/S. Devi/

Date Considered

10/28/2009

Examiner

Signature

Sheet

20

of